Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-34 (canceled)

35. (new) A labor contraction sensing device comprising:

a fiber optic strain sensor having an attachment surface adaptable for conforming said sensor to the contour of the abdomen of a pregnant female; and

a signal transmitter in communication with said fiber optic strain sensor;

said fiber optic strain sensor being operable for generating an output signal in response to a labor contraction of the pregnant female and communicating the output signal to said signal transmitter;

said signal transmitter being operable for receiving the output signal and communicating the output signal to monitor the labor contraction.

36. (new) The labor contraction sensing device of claim 35 wherein said attachment surface comprises an adhesive.

37. (new) The labor contraction sensing device of claim 35 wherein said attachment surface has a generally elliptical shape.

38. (new) The labor contraction sensing device of claim 35 wherein said attachment surface comprises a plurality of surface portions having a plurality of shapes for conforming to varying contours of the abdomen.

39. (new) The labor contraction sensing device of claim 35 wherein said sensor has a generally elliptical shape.

40. (new) The labor contraction sensing device of claim 35 wherein said sensor is disposed within a sensor jacket.

41. (new) The labor contraction sensing device of claim 35 further comprising a flexible drape overlying said sensor.

42. (new) The labor contraction sensing device of claim 35 wherein said signal transmitter comprises a wireless signal transmitter.

43. (new) The labor contraction sensing device of claim 35 wherein said sensor comprises a single loop of fiber optic cable.

44. (new) The labor contraction sensing device of claim 35 wherein said sensor comprises a plurality of fiber optic cables.

45. (new) A labor contraction sensing device comprising:

a fiber optic strain sensor;

a signal transmitter in communication with said sensor; and

a flexible drape overlying said sensor, said drape being adaptable for attaching said sensor to the abdomen of a pregnant female;

said sensor being operable for generating an output signal in response to a labor contraction of the pregnant female and communicating the output signal to said signal transmitter;

said signal transmitter being operable for receiving the output signal and communicating the output signal to monitor the labor contraction.

46. (new) A labor contraction sensing device comprising:

a fiber optic strain sensor comprising a fiber optic cable disposed within a sensor cover;

said sensor cover having a surface conformable with the contour of the abdomen of a pregnant female;

an adhesive pad having a lower surface, an upper surface, and a compartment between said lower and upper surfaces;

said adhesive pad being adaptable for removably securing said sensor to the abdomen of the pregnant female; and

an electronics box disposed within said compartment, said electronics box comprising

a light source in communication with said cable,

a light detector in communication with said cable,

an optical signal processor in communication with said light detector,

a signal transmitter in communication with said processor, and

a power source connected to said light source, said light detector, said processor, and said transmitter;

wherein, in response to a labor contraction of the pregnant female, said sensor and said electronics box cooperate to generate and transmit an output signal representative of the labor contraction.

47. (new) A labor contraction sensing device comprising:

an adhesive pad having a first surface and a second surface;

said first surface of said adhesive pad being removably attachable to and conformable to the contour of the abdomen of a pregnant female;

a fiber optic strain sensor attached to said second surface of said adhesive pad;

said fiber optic strain sensor comprising a fiber optic cable disposed within a sensor cover;

a light source in communication with said cable;

a light detector in communication with said cable;

an optical signal processor in communication with said light detector;

a signal transmitter in communication with said processor; and

a power source connected to said light source, said light detector, said processor, and said transmitter;

wherein, in response to a labor contraction of the pregnant female, said sensor, said light source, said light detector, said processor, and said transmitter cooperate to generate and transmit an output signal representative of the labor contraction.

48. (new) The labor contraction sensing device of claim 47 wherein said light source, said light detector, said processor, said transmitter, and said power source are housed in an electronics box.

49. (new) The labor contraction sensing device of claim 48 wherein said electronics box is disposed within a pouch adjacent to said sensor.

50. (new) The labor contraction sensing device of claim 47 wherein said sensor is removable from said adhesive pad.